



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,066	12/21/2006	W. Dennis Slafr	59380-049(MCMK-003)	3700
23630	7590	07/11/2007	EXAMINER	
MCDERMOTT WILL & EMERY LLP			HUBER, PAUL W	
28 STATE STREET			ART UNIT	PAPER NUMBER
BOSTON, MA 02109-1775			2627	
MAIL DATE	DELIVERY MODE			
07/11/2007	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b><i>Office Action Summary</i></b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/588,066	SLAFER ET AL.
<b>Examiner</b>	<b>Art Unit</b>	
Paul Huber	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 21 December 2006.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-21 is/are rejected.

7)  Claim(s) 18-21 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5)  Notice of Informal Patent Application  
6)  Other: \_\_\_\_\_

Art Unit: 2627

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claims 18-21 are objected to because the dependency of the claims appear incorrect. Specifically, in claim 19, there is no positive antecedent for "the laser head array," and it appears this claim should actually be dependent from claim 18. Claims 18, 20 and 21 appear to also be incorrectly dependent on claim 16 and rather should actually be dependent from claim 17. Appropriate correction is required. For examination purposes only, the claims 18-21 will be considered dependent upon claims 17, 18, 17 and 17, respectively.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakayama et al. (USP-5,989,671).

Regarding claims 1, 7-9, 12, 15-17 & 21, Nakayama et al. discloses a pre-formatted optical data storage tape 1. See figures 4(a) – 6, for example. The optical data storage tape 1 includes: an elongated linear polymer layer 2 having a plurality of parallel patterns of optically readable embossments 23 on at least one surface of the polymer layer (see col. 6, lines 47-61, and col. 7, lines 31-36); and an optical recording layer 25 covering the pattern of optically readable embossments 23 of the elongated linear polymer layer 2. The optical recording layer 25 is adapted such that recorded marks may be made in the recording layer by directing a focused source of energy into the recording layer 25.

Regarding claims 2, the optical data storage tape of Nakayama et al. is adapted to be stored in a cassette case where it is inherent that the tape is provided on a cassette having dual hubs. See col. 1, lines 52-60, and col. 4, lines 7-14, for example.

Regarding claims 3, the optical data storage tape of Nakayama et al. has a thickness as claimed. See col. 4, lines 50-65, and col. 9, lines 26-28, for example.

Regarding claim 13, see col. 8, lines 29-31.

Art Unit: 2627

Regarding claims 4, 6, 18 & 19, see figures 8-10 which disclose an optical data storage tape 1 including an elongated linear polymer layer 2 having a plurality of parallel patterns of optically readable embossments 43b on at least one surface of the polymer layer, and an optical recording layer 44 covering the pattern of optically readable embossments 43b of the elongated linear polymer layer 2. Nakayama et al. further teaches using an optical head array as claimed, i.e., a pre-formatting-use laser in conjunction with a recording/reproducing laser. See col. 10, lines 41-48, and col. 11, lines 26-32.

Regarding claims 10 & 11, see figures 8-10 which disclose an optical data storage tape 1 including an elongated linear polymer layer 43 having at least one pattern of optically readable embossments 43b on at least one surface of the polymer layer, a carrier layer 2 supporting the polymer layer 43, and an optical recording layer 44 covering the pattern of optically readable embossments 43b of the elongated linear polymer layer 43. See col. 9, lines 31-35, which teaches that the layer 43 is a polymer layer (PMMA).

Regarding claim 14, see figures 8-10 which disclose an optical data storage tape 1 including an elongated linear polymer layer 43 having at least one pattern of optically readable embossments 43b on at least one surface of the polymer layer, and an optical recording layer 44 covering the pattern of optically readable embossments 43b of the elongated linear polymer layer 43. See col. 9, lines 31-35, which teaches that the layer 43 is a polymer layer (PMMA). A back coat layer 2 is secured to a surface of the elongated linear polymer layer 43 opposite the surface of the polymer layer having the pattern of optically readable embossments 43b. The back coat layer 2 is adapted for at least friction control as claimed, since the layer 2 serves to protect the recording medium from damage caused by friction.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the

Art Unit: 2627

time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al., as applied to claim 4 above, in further view of Chung et al. (US-2002/0114240).

Nakayama et al. discloses the invention as claimed, but fails to specifically teach an optical compensator positioned between the optical head array (the pre-formatting laser and recording/reproducing laser) and the optical data storage tape. Chung et al. discloses an optical pickup including a compensator 75, in the same field of endeavor, for the purpose of compensating for spherical aberration caused by thickness variation of a recording medium. See figure 5 and abstract.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Nakayama et al. such that the an optical compensator is positioned between the optical head array (the pre-formatting laser and recording/reproducing laser) and the optical data storage tape as claimed and as taught by Chung et al.. A practitioner in the art would have been motivated to do this for the purpose of compensating for spherical aberration caused by thickness variation of a recording medium.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al., as applied to claims 16 & 17 above, in further view of Tsukamoto (US-2005/0063291).

Nakayama et al. discloses the invention as claimed, but fails to specifically teach that the side walls of the grooves are wobbled for tracking purposes. Tsukamoto discloses an optical storage medium which may be in the form of an optical tape (see page 1, paragraph 0014) wherein side walls of the grooves are wobbled, in the same field of endeavor, for tracking purposes. See page 8, paragraph 0111, and page 9, paragraph 0126.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Nakayama et al. such that the side walls of the grooves are wobbled as claimed and as taught by Tsukamoto. A practitioner in the at would have been motivated to do this for the purpose of enabling tracking control of the recording medium by the wobbling pre-groove method.

Art Unit: 2627

Any inquiry concerning this communication should be directed to Paul Huber at telephone number 571-272-7588.



Paul Huber  
Primary Examiner  
Art Unit 2627

pwh  
July 3, 2007